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Front cover collage photographs courtesy of: www.nrcs.usda.gov, www.oznet.ksu.edu, www.asi.ksstate.edu., www.visitgreatbend.com, http://www.westviewfarm.net/, and www.ecn.purdue.edu
CAFO: http://rgp.ufl.edu/publications/explore/v10n2/story3.html
Cell grazing in Cowley County: Scott Satterthwaite August 1999
District Conservationist Kevin Religa inspecting clover as part of rotation and cover crop on front cover, controlled prairie burn and contour terraces on back cover, Photos courtesy of USDA NRCS: http://photogallery.nrcs.usda.gov/Detail.asp
Farm Machinery Repair: http://www.careerdirections.ie/CDW3C/foto/rad2-b.jpg
Irrigation Pivot: http://www.accesskansas.org/kscc/wc.html
Livestock Auction Facility: http://www.mokanlivestock.com/main/index.php

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Sources of Additional Information

EPA Nonpoint Source Pollution Information: http://epa.gov/owow/nps/

Farm/Home*A*Syst is a confidential, self-assessment program you can use to evaluate your home and property for pollution and health risks: http://www.sbeap.org/homeasyst/Water_qual_prot_assess_form.PDF

Kansas Department of Agriculture: http://www.ksda.gov/

Kansas Livestock Environmental Stewardship: http://www.oznet.ksu.edu/kles

Kansas Rural Center Clean Water Farm Projects: http://www.kansasruralcenter.org/CWFP.htm

KS Water Well is a public educational campaign to encourage Kansans with rural water wells to test their water for pollutants: http://www.kswaterwell.org/

Layman's Guide to Kansas' Water Terminology & Acronyms: http://www.hwqp.org/KELP%2520final.pdf

State Conservation Commission: http://www.accesskansas.org/kscc/

USDA Natural Resources Conservation Service: http://www.nrcs.usda.gov/

Wellowner.org provides information about groundwater and private water wells: http://www.wellowner.org/

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For Further Information Contact:

Kansas Department of Health & Environment
Bureau of Water
Watershed Management Section
1000 SW Jackson Street Suite 420
Topeka, KS 66612
(785) 296-4195
http://www.kdheks.gov/nps/index.html

Source Water Protection: What You Can Do

Agricultural

Water treatment costs are increased whenever contaminates are introduced into your drinking water supply.

Location	Potential Water Quality Impacts	What You Can Do
Abandoned Water Wells	Abandoned water wells can act as a direct channel for contaminants from the surface to reach groundwater. Dug wells may cause safety hazards.	Locate and plug abandoned water wells. Contact a licensed water well contractor for proper well plugging procedures. Your County Health Department or Extension Office can provide additional information.
Auction Lots	Improper storage and management of animal wastes and wastewater in areas of concentrated livestock may impact source water.	Surround livestock yards with berms to prevent runoff. Install a waste treatment lagoon to manage livestock waste. Holding pens should be roofed. 
Burn Areas	 Vegetation removal by fire may increase surface erosion and sediment delivery rates, resulting in high turbidity in the drinking water source.	Plan burning to adhere to weather, time of year, and fuel conditions to help achieve the desired results and minimize impacts on water quality. Construct firelines to minimize erosion and prevent runoff from directly entering water bodies. Avoid burning on steep slopes or areas with highly erodible soils and conditions that require extensive blading of firelines by heavy equipment.
Confined Animal Feeding Operations (CAFOs)	Improper storage and management of animal wastes and wastewater in areas of concentrated livestock may impact drinking water. . Concentrated livestock may contribute to bacteria, nitrate, phosphorous, erosion, and sedimentation of source water.	 Implement a nutrient management plan. Install a sediment basin: settle out the solid waste and store the liquid wastes from livestock in a waste treatment lagoon, this liquid can later be applied to crops. Periodically remove solid manure from sediment basins. Control runoff by installing diversions to prevent clean water from flowing over a feedlot and vegetative filter strips.
Cropland 	Over-application or improper handling of pesticides or fertilizers may impact drinking water. Excessive nutrients lead to an imbalance in natural life cycles of water bodies. Excessive irrigation may cause transport of contaminants or sediments to groundwater/surface water through runoff.	Test soils prior to applying fertilizers. Evaluate all factors when selecting a pesticide, select the material that is least toxic to beneficial insects, the environment, and wildlife, and read and follow all label instructions. Install efficiency nozzles, drops, and components in a new or existing sprinkler irrigation system. Other options include terracing, grassed waterways, residue management, and buffer strips.
Farm Machinery Repair	Spills, leaks, or improper handling of solvents and petroleum products during transportation, use, storage and disposal may impact the drinking water supply. 	Prevent the release of used machinery fluids to the environment by draining and replacing fluids in areas where there are no connections to storm drains or sewers. Place a drip pan under the vehicle when removing or replacing parts. Any spills should be cleaned up immediately. Batteries and many fluids can be recycled. Repair any fluid leaks that machinery may develop immediately.
Grazing Animals	Improper storage and management of animal wastes may impact drinking water supply by contributing bacteria, nitrate, phosphorous, erosion, and sedimentation to source water.	Provide alternative water sources and limit or restrict livestock access to streams. Divide pastureland into small areas for rotational grazing. Stabilize streambanks and establish riparian buffers. 
Pesticide/Fertilizer/ Petroleum Storage, Handling, Mixing, & Cleaning Areas	Leaks, spills and improper handling of pesticides, fertilizers and petroleum products may impact source water.	Mix chemicals and load sprayers away from any water supply and do not allow equipment rinse water to run into sewers, drains, or surface water. Call 911 in the event of a spill. Follow state requirements for design and construction of facilities.